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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/664,273	09/18/2000	Jean-Claude Constantin	32978	4537

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EXAMINER
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ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/664,273	CONSTANTIN, JEAN-CLAUDE	
	<b>Examiner</b>	<b>Art Unit</b>	
	Lun-See Lao	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>09-19-2001</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Introduction***

1. This action is in response to the amendment filed on 01-26-2006. Claims 1, 11 and 14 have been amended. Claims 1-20 have been pending.

### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01-26-2006 has been entered.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 11 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The driven "a wireless transmission system comprising : a receiver Comprising an

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antenna; at least one transmitter; a signal which is modulated in at least one of amplitude, frequency and- phase, the signal being transmitted from one of the at least one transmitters to the receiver, means for generating and transmitting configuration parameters for enabling demodulation of the signal, and the configuration parameters being transmitted independent of the signal; and means for receiving and processing the configuration parameters, said means being provided in the receiver” (see specification page 5-6) was not supported in the further detail in the specification nor in any of the claim.

The original specification fails to disclose that means for generating and transmitting configuration parameters for enabling demodulation of the signal, and the configuration parameters being transmitted independent of the signal as cited in claim 11.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5, 11, 14, and 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Morales-Garza (PAT. 5,257,099).

Consider claim 1, Morales-Garza teaches that a method to control a transmission system comprising at least one transmitter and at least one receiver (see fig.6, (5BB, 5BF)), the method comprising the steps of:

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Transmitting (5BF, 5BG) a signal wirelessly through an information channel, the signal being modulated in at least one of amplitude, frequency and phase (see col. 4 line 20-43),

transmitting configuration parameters (such as, channels select information) wirelessly through a channel (between, 5G, 5BH), independent of the signal transmitted through the information channel; and

implementing adjustments (see fig.6. (5BC))) in the receiver according to the configuration parameters to enable (such as switch) demodulation of the signal transmitted through the information channel (col.4 line 66-col. 5 line 17).

Consider claim 2. Morales-Garza teaches that an identification code is transmitted through the control channel (see fig. 6 between 5G and 5BH), and wherein the identification code is checked in the receiver and based on the check the adjustments (5BC) are carried out in the receiver according to corresponding configuration parameters (see col. 4 line 66-col. 5 line 17).

Consider claim 3-4, Morales-Garza teaches that the receiver (see fig. 6, (5BB, 5BH)) is programmed by a configuration unit (5BC), and wherein programming data for programming the configuration unit is transmitted through the channel (col.4 line 66-col. 5 line 17); and the information is transmitted from the receiver (5BB, 5BH) through the channel to the configuration unit (5BC and see col.4 line 66-col. 5 line 17).

Consider claim 5, Morales-Garza teaches that one or more identification codes (see fig. 8) are addressed to a plurality of receivers (such as, 5BH received a code from

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the controller (5G) and address 5BC to select a channel from the receiver (5BB) and see col.4 line 66-col. 5 line 17).

Consider claims 18-19, Morales-Garza teaches that the control channel (see fig.6, between 5G and 5BH) is separate from the information channel (5A and see col. 4 line 66-col. 5 lines 17); and the control channel (see fig.6, between 5G and 5BH) has a carrier frequency different from a carrier frequency of the information channel (5A and see col. 4 line 66-col. 5 lines 17).

Consider claim 11 Morales-Garza teaches that a wireless transmission system comprising (see fig.6):

- a receiver comprising an antenna (see fig.6, 5A);

- at least one transmitter (5BF, 5BG);

- a signal which is modulated in at least one of amplitude, frequency and- phase (see col. 4 line 20-44), the signal being transmitted wirelessly through an information channel from one of the at least one transmitters to the receiver (see fig.6 (5BF, 5BG, and 5BB, 5BH)),

- for generating and parameters(see fig.6 (5BC)) for transmitting configuration enabling (see fig.6, (switch)) demodulation of the signal, and the parameters being transmitted independent of configuration the signal and wirelessly through a control channel independent (between 5G and 5BH) of the information channel; and

- means (5BC) for receiving and processing the configuration parameters, said means (5BH) being provided in the receiver (see col. 4 line 66-col.5 line 17).

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Consider claim 14, Morales-Garza teaches a receiving device comprising : a receiver (see fig.6, (5BB)) for receiving signals (see col.4 lines 20-44) which are modulated in at least one of frequency and phase, the signals being received at an antenna (5A) connected through a filter-amplifier (see fig.7 (7A,7B)) unit and a consecutive mixer (see fig.7, &7C,7H)) to a demodulator (see fig.7, (5BB)) to generate demodulated signals based on configuration parameters (5BC), the mixer (7C, 7H) being loaded with the an output signal from a synthesizer which is controlled by a control unit (5BC and see col. 5 line 18-57), and transceiving means for wirelessly receiving the configuration parameters (by (microprocessor, 5BC)), independent of a signal received by the receiver (see fig.6, between 5G and 5BH); and transceiving means (see fig.6, between 5G and 5BH) being connected to the control unit (5G and see col. 4 line 66-col. 6 line 17).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6-10, 12-13, 15, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morales-Garza (US PAT. 5,257,009) in view of Anderson (US PAT. 5,721,783).

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Consider claim 6, Morales-Garza does not clearly teach teaches that the demodulation of the signal based on the configuration parameters is carried out using a generated frequency to produce at least one demodulated signal, and wherein the at least one demodulated signal is fed to another processing unit , of at least one of a hearing aid or an electro-acoustic transducer.

However, Anderson teaches that the demodulation of the signal based on the configuration parameters (see fig.9 (948)) is carried out using a generated frequency to produce at least one demodulated signal, and wherein the at least one demodulated signal is fed to another processing unit (see fig.8 and see col. 21 line 30-col. 22 line 61), of at least one of a hearing aid or an electro-acoustic transducer (see fig.1 and col. 21 line 30-col. 22 line 61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Anderson into Morales-Garza to provide a two wireless channel communication hearing system for more friendly using and market demand.

Consider claim 7, Anderson teaches a total transfer function resulting from the transmitter and the receiver (see fig.9) is modified in the receiver (900,960,970) by transmitting transfer function (such as least mean squares) parameters of the transmitter through the channel to the receiver, said transfer-function parameters comprising amplification and frequency of transmission and wherein the transfer function of the receiver (900, 960, 970) is modified in relation to a desired total transfer function (col. 27 line 25-col. 29 line 17).



Consider claims 8-10, Anderson teaches that an antenna (see fig.8, 40) receiving the modulated signal is tuned to a particular transmission frequency (see col. 11 line 19-col.12 line 46); and the transmission through the channel is carried out using FSK (frequency shift keying) modulation (see col. 11 line 1-18 and see the discussion above of claim 1); and the audio signals are transmitted from the transmitter to at least one receiver (fig. 2) wherein the at least one receiver is connected to at least one of a hearing aid and an electro-acoustic transducer (see col. 11 line 19-col.12 line 46).

Consider claim 20 Anderson teaches that configuration parameters (see fig.9 916, 924, 928) comprise and the carrier frequency of the information identification of channel (see fig.9 and col.8 line 53-col. 9 line54).

Consider claim 12, Morales-Garza does not clearly teach that the means for generating and transmitting the configuration parameters are provided in at least one of a remote control, a transmitter, a control unit connected to a loop antenna.

However, Anderson teaches that the means (see fig.9) for generating and transmitting the configuration parameters (916, 924, 928) are provided in at least one of a remote control (see fig.2 (22 by signal F1))), a transmitter (see fig.1, (22, (F1))), a control unit (23) connected to a loop antenna.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Anderson into Morales-Garza to provide communication system to using a loop antenna for market demand.

Consider claim 13 Anderson teaches a configuration unit (see fig.9, 948 and see col.21 line 30-col. 22 line 61); and transmission system of the receiver is connected to

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at least one of a hearing aid and an electro- acoustic transducer (see fig.1 and abstract).

Consider claim 15, Morales-Garza does not clearly teach that the transceiving means comprises a transceiver, a transceiving coil and a capacitor to adjust the transceiving coil.

However, Anderson teaches that the transceiving means (see fig.4, 40) comprises a transceiver (40), a transceiving coil (41,42) and a capacitor to adjust the transceiving coil (see fig.4, 42, 41 and col. 11 line 19-col. 12 line 46).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Anderson into Morales-Garza, since it is one of the well known transceiving circuits for market demand.

Consider claim 17, Anderson teaches a hearing aid comprising the receiver (see fig.1 and col. 27 lines 4-24).

9. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morales-Garza (US PAT. 5,257,099) in view of Schotz (WO 97/29550).

Consider claim 16. Morales-Garza do not clearly teach an integrated circuit on a CMOS chip, the integrated circuit comprising the filter-amplifier unit, the mixer, the demodulator, the synthesizer and the control.

However, Schotz teaches an integrated circuit on a CMOS chip, the integrated circuit comprising the filter-amplifier unit (see fig. 3a, 138, 154), the mixer (168), the

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demodulator (168), the synthesizer (160) and the control unit (see fig. 3b, 164 and see page 14 line 34-page 35 line 26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Schotz into the teaching of Morales-Garza to provide a two wireless channel communication system which can be more compact and more economic to be made

### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jackson (WO 98/00997) is recited to show other related the method for controlling a transmission system, application of the method, a transmission system, a receiver and a hearing aid.

12. Any response to this action should be mailed to:

Mail Stop \_\_\_\_ (explanation, e.g., Amendment or After-final, etc.)

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401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lao,Lun-See whose telephone number is (571) 272-7501. The examiner can normally be reached on Monday-Friday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.

Lao,Lun-See L.S.  
Patent Examiner  
US Patent and Trademark Office  
Knox  
571-272-7501  
Date 04-06-2006

  
VIVIAN CHIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

4/17/06